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EDUCATIONAL MEDIA INSTITUTE EVALUATION (EMIE)
PROJECT--SUPPLEMENTARY REPORT.

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THIS PROJECT WAS AN ASSESSMENT OF 74 INSTITUTES OFFERED IN 1965-66, UNDER THE PROVISIONS OF THE NDEA, FOR 3,149 EDUCATIONAL MEDIA SPECIALISTS. THE PROJECT'S MAJOR CONCERNS WERE (1) HOW DOES ATTENDANCE AT AN EDUCATIONAL MEDIA SPECIALIST INSTITUTE CHANGE PARTICIPANTS, (2) IN WHAT WAYS DO THESE INSTITUTES INFLUENCE PROFESSIONAL PROGRAMS FOR THE PREPARATION OF EDUCATIONAL MEDIA PERSONNEL, AND (3) WHAT MAKES A "GOOD" EDUCATIONAL MEDIA SPECIALIST INSTITUTE. DATA WAS GATHERED VIA REPORT FORMS, INTERVIEWS, QUESTIONNAIRES, AND OBJECTIVE TESTS. FINDINGS SHOWED THAT THE INSTITUTES IMPROVED PARTICIPANTS' KNOWLEDGE AND ATTITUDES RELATING TO EDUCATIONAL MEDIA. AS A RESULT OF THE INSTITUTES, PROFESSIONAL PROGRAMS IN EDUCATIONAL MEDIA RECEIVED GREATER ATTENTION AND ENROLLMENT, IMPROVED COURSE CONTENT AND CONTACTS WITHIN THE FIELD, AND USED NEW METHODS. THE "GOOD" INSTITUTE SHOULD BE WELL PLANNED, ADMINISTERED, AND STAFFED, AS WELL AS SELECTIVE, VARIED (IN TYPES OF INSTRUCTION), INNOVATIVE, PROFESSIONAL, AND PRACTICAL. RECOMMENDATIONS ARE MADE FOR FUTURE INSTITUTES OF THIS KIND. (MS)

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EDUCATIONAL MEDIA INSTITUTE EVALUATION (EMIE) PROJECT:
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June 1967

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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SUPPLEMENTARY REPORT

Project No. 5-0270
Contract No. OE-5-16-041

By

JAMES W. BROWN

Project Director

June 1967

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1. INTRODUCTION

Background

Recent explosions of educational technology and expansions of the "knowledge industry" have stimulated rapid introduction into our schools of myriad numbers of new, complex, sophisticated teaching media and tools as well as broadened coverage of those that have been around for some time. The Elementary and Secondary Education Act, and the National Defense Education Act before it, have provided funds urgently needed to establish or augment these resources all across the country.

Coupled with this increase in availability has come better understanding of the proper roles of such resources in teaching and learning. The "cafeteria approach" of former years (by which each teacher was more or less responsible on his own for finding out about resources--a film or phonograph recording here, some supplementary books there--and choosing those that seemed to come closest to meeting his requirements) seems to be fading out. Replacing this approach (much too gradually to satisfy many people) one sees the emerging image of a "system" or "systems approach" with its much more careful attention to objectives, instructional resources, tested and re-tested techniques and formats of instruction, specialization of teaching personnel, frequent evaluation, and recycling and continued improvement of the program involved. In this latter approach the "message design" function of the educational media specialist assumes considerable importance.

These two trends--the changing approach to the organization of instruction and the increasing availability of new tools for teaching and learning--are also seen to have influenced our conception of the proper role of the "educational media specialist" in the total educational program. The significance of his contributions to the more central tasks of "designing

educational messages"--of working closely with teachers and curriculum planning groups at various levels--emphasize this changed concept and indicate clearly his role in systematizing instruction.

These changes in the availability and complexity of educational media, in the technology accompanying them, and in our concept of the proper roles of personnel in changing patterns for teaching and learning, suggest a number of things about the professional preparation of educational media specialists. They also suggest that we need far greater numbers of them than we have ever had before. Concomitantly, but no less importantly, these trends remind those who are interested in the efficient deployment and optimum utilization of the talents of professionally prepared media personnel that it is necessary: (1) to identify educational media tasks that are "professional" and those that are not, and (2) to develop suitable preparation programs for individuals involved with both types.

The recently amended National Defense Act of 1958 offered a timely means of at least partially meeting most of these needs. This Act, with its subsequent amendments, has been credited with facilitating the mass retraining of literally thousands of professional school personnel. Under its provisions, for example, 1,048 institutes offered in twelve fields during 1965 and 1966 were attended by more than 43,000 individuals. Another 491 such institutes to be offered in 1967 will include nearly 18,000 more. Institutes were offered in the following content fields: History, English, English as a Foreign Language, Geography, Modern Foreign Language, Reading, Civics, Economics, and Industrial Arts. Similar institutes were also provided to Teachers of Disadvantaged South, School Library Personnel, and Educational Media Specialists.

What follows is our assessment of the latter group --the 74 institutes offered during 1965 and 1966 for 3,149 educational media specialists.

Problems

The Educational Media Institute Evaluation (EMIE) Project, sponsored by the Department of Audiovisual Instruction and carried out under an NDEA Title VII-B grant, began in June 1965 to identify factors influencing the effectiveness of institutes designed to upgrade the performance of professional educational

media specialists. The full plan for this evaluation involved systematic study of student characteristics, institute characteristics, plans of organization, programs of instruction, selection of participants, administrative provisions, and related conditions.

The three major concerns of the EMIE Project, expressed as questions and forming the principal basis for the organization of the remainder of this report, were:

* How does attendance at an educational media specialist institute change participants--immediately, and over a period of time?

* In what ways do these institutes influence professional programs for the preparation of educational media personnel?

* What makes a "good" educational media specialist institute?

It was obvious that our effort to answer these questions had to be preceded by considerable routine acquisition of information about institute locations, sources of enrollment, previous preparation of participants, instructional programs, teaching staff, facilities and resources, administrative arrangements, and a great deal more. And it was even more obvious that, having obtained such facts, there would remain the still more important task of matching such information with "effect" so as to be able to say, in the end, that this or that way of carrying out some part of an institute was "good" and therefore deserving of recommendation to others.

Perhaps it is appropriate, at this point, to introduce a recent statement by Harold Howe II, the Commissioner of Education, who had a few things to say about evaluation of educational programs such as those for educational media specialists:

Let me say first of all that I thoroughly support the idea of responsible evaluation of any program --and the more energy (which is to say money) that goes into it, the more I think it deserves disciplined study. But having said this, let me add two or three additional points. Evaluation of educational endeavors usually seeks to prove whether a given effort has produced a desirable change in a school or college or among a group

of students. We need to remember that the two most difficult entities to change (with the possible exception of churches) are educational institutions and people. Each has a momentum of its own based on its past. The processes of change are necessarily slow, and they are difficult to describe and to assess quantitatively.¹

¹Saturday Review, December 17, 1966, p. 70.

2. METHODS, RESULTS, DISCUSSIONS

A. DATA SOURCES

Ten different means were employed by the EMIE Project to obtain data for this study, as follows:

* **PERSONAL INFORMATION REPORT FORM.** This form was used during the first week of both the 1965 and 1966 institutes to obtain basic information concerning the education, experience, age, sex, place and level of assignment, and previous course completions of participants. Resulting data were machine-processed.

* **INTEREST AND COMPETENCY RATING FORM.** This instrument listed a total of 23 broad goals, some or all of which could have constituted objectives of educational media specialist and selected school librarianship personnel institutes studied. Goals were grouped under: (1) background (status, trends, theory), (2) evaluation of programs (action research), (3) selection and evaluation, (4) professional assistance to teachers, (5) production, (6) administration, (7) facilities design, and (8) technical.

* **ON-SITE VISITORS' REPORTS (AND INTERVIEW SCHEDULES).** Teams of on-site visitors used standard procedures, rating scales, and questions in making personal assessments of institutes visited. Similarly standardized formats were used in preparing written reports of such visits.

* **FINAL REPORTS, PROPOSALS, AND PLANS OF OPERATION.** These items were prepared by institute directors to fulfill requirements of the U.S. Office of Education.

* **FOLLOW-UP QUESTIONNAIRES.** These questionnaires were distributed to participants involved in 1965 institutes approximately one year and again approximately 20 months after their conclusion. Summer 1966 participants received the questionnaire about nine months after completing their studies. Questionnaire

items called for ratings of principal duties on-the-job, amounts of money spent for media, equipment, and services, identification of school level in which employed, amount of time devoted to "media" activities, academic goals, ratings of the value of the institute experience in the participant's present assignment, memberships in professional organizations, and the like.

* FOLLOW-UP INTERVIEW GUIDES. A standardized plan, including directions for making on-the-job observations and for conducting and reporting interviews with participants and their administrators. Used with 25 basic institute participants, 15 advanced institute participants, and 10 television institute participants and their administrators (50 in all).

* GRADUATE PROGRAMS QUESTIONNAIRE. A survey instrument distributed to directors of funded media specialist institutes (those funded and offered; also those funded but not yet offered at the time of contact). Included were questions concerning the extent to which NDEA institutes had influenced their graduate level programs for the preparation of professional educational media specialists. Areas covered included numbers and quality of graduate students, changes in courses and degrees offered, changes in instructional organization and practice, and the like.

* ACSSAVO INTERVIEWS. A series of four questions presented in person to a general meeting of members of the Association of Chief State School Audiovisual Officers (ACSSAVO) in Atlantic City, New Jersey, during the Spring 1967 DAVI conference. Questions dealt principally with the influence of media specialist institutes in improving the quality of professional media personnel in the various states.

* McLAUGHLIN MICE TEST (INFORMATION). An objective test pertaining to educational media developed by Richard McLaughlin, Syracuse University, used experimentally in media specialist and selected school librarianship personnel institutes during Summer 1965. Two administrations (one pre-institute, one post-institute) were involved.

* RAMSEY ATTITUDE SCALE. An instrument developed experimentally by Curtis P. Ramsey, George Peabody College, also used on a pre- and post-institute basis during Summer 1965. It was intended to measure changes in participant attitudes toward the use of educational media.

B. CHARACTERISTICS OF INSTITUTES

Information concerning characteristics of the institutes and participants told us much about where institutes were offered, who attended, where participants were employed, what previous education and experience they had had, and more.

Types, Locations, and Enrollments

A special problem encountered with the EMIE studies was the fact that there were not one but many (six, to be exact) major variations of educational media specialist institutes. The ones we recognized and dealt with in one or both of the two years of this study were: (1) Basic--enrolling participants with minimal preparation, experience, and/or media responsibilities but who were or planned to become educational media specialists; (2) Advanced--involving somewhat more sophisticated instructional programs intended to update and improve the competencies of already-employed educational media specialists whose previous educational backgrounds included several completed courses in the field and whose immediately anticipated job assignments were at multi-building and district levels; (3) Television--classified simply on the basis of institute content (television); (4) Intermediate (Code 2)--for individuals having competence in such fields as the selection and use of media, curriculum, in-service education, production, administration or research in media; (5) Special--considered for this classification according to two factors: (a) relative narrowness of the range of topics covered (specific rather than general in their content), and (b) differences in the characteristics of their participants (often containing a heavy mixture of individuals who did not intend to serve as educational media specialists); and (6) Librarianship--including a number of institutes according to their emphasis upon the "instructional materials center" concept or "new media" activities in the context of the school library.¹

¹This supplementary report is limited primarily to discussions of the first three institute types: Basic, Advanced, and Television. For further details concerning the other three, see Summer 1965 and Summer 1966 Reports listed in the Bibliography appearing at the end of this report.

Because these institute types were so different as to content, purposes, and personnel enrolled, it was almost always necessary to study and discuss them separately.

Locations of educational media specialist institutes and the numbers and sources of participants for the two years concerned provide a number of interesting comparisons:

* At least one media specialist institute was offered in 32 different states, in Puerto Rico, and in the Virgin Islands.

* States offering the greatest number of institutes included: New York (6); Indiana (5); California (5); Ohio (4); Michigan (3); Illinois (3); and North Dakota (3).

* At least a few participants came from every state and from Puerto Rico, the Virgin Islands, and the Canal Zone. The greatest number of participants came from: Michigan (195); Ohio (171); New York (160); California (153); Illinois (124); Hawaii (107); and Indiana (106). The smallest number came from Nevada (2).

* The institutes themselves provided a considerable geographic "mix" of participants. A total of 1013 (38%) of them, for example, attended institutes outside their home states; 62% attended institutes within them. Areas attracting the highest numbers of within-state attendees were: Michigan (172); New York (144); Ohio (122); California (109); Hawaii (98); and Indiana (88).

* Largest attendance for basic institutes came from Michigan (153); Ohio (122), and California (72). Largest attendance for advanced institutes came from California (53), Texas (23), and Indiana (22). Largest attendance for television institutes came from Hawaii (50), Idaho (34), and Illinois (28). Some 25 television participants came from each of the states of Michigan, Ohio, and South Carolina.

Thus, while the more populous states were the sites of numerous institutes and provided relatively large numbers of participants, EMSI institutes afforded opportunities for school personnel from all locales to take part in them.

TYPES AND ENROLLMENTS OF EDUCATIONAL MEDIA SPECIALIST INSTITUTES
(1965 and 1966 Combined)

USOE Code*	EMIE Analysis Categories					Totals
	Advanced	Code 2**	Basic	Special	Television	
1	130 (4)***			27 (1)		157 (5)
2	97 (3)	203 (5)	35 (1)	159 (5)	30 (1)	524 (15)
3			1516 (38)	232 (6)	230 (7)	1978 (51)
Totals	227 (7)	203 (5)	1551 (39)	418 (12)	260 (8)	2659 (71)

Notes:

* Participant preparation code (experience, education).
 ** An "intermediate" Code 2 category was used only in 1965.
 *** Numbers in parentheses indicate total number of institutes in that category (for the two years, 1965 and 1966); numbers outside parentheses represent participant enrollments.

C. CHARACTERISTICS OF PARTICIPANTS

Data concerning participants in educational media specialist institutes for 1965 and 1966 reveal who successful applicants were, where they work and live, what they do professionally, and more. Those for both summers--taken as a group and without regard to institute types--may be typified as male (77%), married (83%), and about 38 years old. Prior to attendance, they had completed a median of 37 semester units of graduate course work; 57% of them had already completed master's degrees, but doctorates were scarce (only 1%).

Except for those attending advanced institutes, about the only "educational media" course most had completed before enrollment was the basic (first, general) audiovisual course. A third of them had not completed even that one. Less than one in ten enrollees in either basic or television institutes for both years had completed a course in administration, utilization, evaluation, and graphic production. However, the proportion of advanced institute participants who had completed such courses was much larger (administration, 50%; utilization, 40%; graphic production, 33%; evaluation, 25%).

The typical enrollee in the media specialist institute had been employed in teaching or other educational work for a median total of 11 years. With the advanced media institutes, however, the period was 13 years. A majority of participants (54%) came from communities of less than 25,000 population. More than 9 out of 10 of them were employed in public schools.

Nearly two out of three basic institute participants were found to be serving at the single school level, while the remainder served either a group of schools or a school district. A third of them worked in elementary schools, with smaller numbers in junior high schools (20%) and senior high schools (10%). Approximately 45% of advanced institute participants served at the district or county school level, while 10% worked in elementary schools, 10% in junior high schools, 20% in senior high schools or in grades 1-12 schools. Half the Summer 1965 television participants worked at the district level, but the next summer's group was more frequently found in single schools (70%).

D. HOW INSTITUTES CHANGE PARTICIPANTS

QUESTION ONE. How does attendance at an educational media specialist institute change participants--immediately, and over a period of time?

A simple reading of the above question is all that is needed to remind one that Mr. Howe was right when he wrote about difficulties involved in assessing change. To attempt to determine how participants were changed by attending an institute would require, first of all, that we have quite a lot of information about them as they began the program. What did they know? What skills did they have? How did they "feel," even, about certain generally agreed-upon matters in the world of "educational media"?

Ideally, too, we would have identified each participant well in advance of the institute and would have known a great deal about him--what his media program was like, how his fellow teachers and administrators regarded him and his work, how his services and resources contributed to the improvement of learning, and more. We would then have followed this individual through his entire institute experience, noting especially the things that he did and the new skills, understandings, and attitudes he developed. Finally, after separating these more recent additions to his professional armory from those with which he came in the first place, we would have retraced our steps to see how, and with what effect, he applied them in his efforts to improve teaching and learning in his own school. Then--and only then--could we say with assurance how this or that aspect of the institute really influenced his on-the-job performance.

Budgets, time, and insights being what they were, EMIE was forced to choose to do only some of these things. We picked up the thread of each participant's story as he came to the institute, asking him at that time to tell us about himself and his school situation, and how he rated his present competence and interest in a number of facets (broad goals) of what were already (or might later become) some of his major professional educational media responsibilities. We asked him to make some of these same self-ratings at the end of the institutes, before going back to his job. And we asked him again--up to 20 months later--to tell us what he was doing on the job and how, if at all, the institute

had helped. Finally, in an effort to avoid depending entirely upon the participant's own personal assessments of these matters, we visited fifty participants, in person, and talked as well to their administrators. There were other things done, too, to gather data in an effort to provide some kinds of answers for Question 2, but these will be discussed later.

End-of-Institute Changes

Short-term changes in participants believed by participants themselves to have been related to institute experiences were sampled through pre- and post-institute use of a Personal Information Report Form containing identically worded statements of some 23 "broad goals," some or all of which could have constituted objectives of institutes they attended. These goals may be classified into eight general groupings: (1) Background (status, trends, theory); (2) Evaluation of Programs (action research); (3) Selection and Evaluation (media and equipment); (4) Professional Assistance to Teachers (emphasizing message design and utilization); (5) Production (simple and complex); (6) Administration (including planning, budgeting, personnel, processing, supervision); (7) Facilities Design; and (8) Technical (characteristics and operation of devices, maintenance). Participants were asked to estimate their beginning and ending interest and competence with respect to each stated goal.

Interest estimates. Participant estimates of interest revealed a number of things. First, they showed higher than "average" interest in all 23 broad goals, although much greater interest in some than in others. Second, the goals for which participants indicated highest degree of pre-institute interest were the goals that were emphasized in instruction: they studied what they were interested in. Third, the goals of highest pre-institute interest were also those for which participants gave highest post-institute interest ratings: the degree of interest in the various broad goals changed only very little with instruction.

Competence estimates. On the other hand, with respect to competence, average pre-institute estimates were quite low for goals in all categories. End-of-institute ratings showed that, on the average, competence of participants increased significantly for all goals and that gains were greatest for: (a) goals

emphasized in instruction,¹ (b) rated by participants as being of greatest pre-institute interest. Participants' end-of-institute comments about "most useful" aspects of instruction also involved these same goals.

Following institute attendance, participants estimated their competence to be highest with respect to the six broad goals listed in the accompanying table. For each group (Basic, Advanced, Television), the goals are ranked in descending order with "1" representing highest competence. A study of these items suggests that participants estimated they were most competent with respect to: (1) producing simple instructional materials, (2) helping teachers and/or students to find and use educational materials, (3) formulating plans of action for their school media programs, (4) using source lists and other evaluative listings of educational media, and (5) operating new media equipment.

Although the three groups of participants (basic, advanced, and television) are seen to have varied in terms of numerical ratings, it is nevertheless interesting to note the extent of agreement among them with respect to "highest competence" goals.

Greatest gains in competence were also reported by participants in basic, advanced, and television institutes with respect to the broad goals listed in the table on page 15. This table was compiled by: (a) ranking, for each of the three groups concerned, the 23 broad goals from high (1) to low (23) with respect to the weight of the gain in competence, and (b) selecting the five goals for which participants in each group indicated the greatest weighted (average) competency gain.

¹Gains were shown for all broad goals, however, whether or not they were so emphasized, suggesting that perhaps one or all of the following might have been responsible: (1) In all institute groups, someone is likely to have a particular competence, whether or not that competence is highly developed in others--and for that particular competence he may become a "teacher" to others, (2) institutes provide numerous opportunities for individuals to pursue personal interests and goals, whether or not they are actually treated in group sessions, and (3) a "reverse halo" effect may operate to cause participants to downgrade initial estimates of their competence but to correct them, at the end, upon seeing how they actually compare with others.

**HIGHEST POST-INSTITUTE COMPETENCE RATINGS:
BROAD GOALS**

Post-Institute Competence Level - Ranked			Broad Goals
Basic	Advanced	TV	
1	1	3	To improve the participant's skills required for local production of <u>simple</u> instructional materials (transparencies, charts, etc.)
2	2	1	To assist teachers in identifying needs for use of educational media and related materials and equipment in the school organization in which the participant works.
3	3	2	To develop skill and insight in working with teachers and students utilizing educational media resources.
4	4	6	To formulate a defensible plan of action for improving the educational media of the school or organization in which the participant works (including both long- and short-term goals).
5	6	5	To become better acquainted with the availability, content, and use of source lists, catalogs, and evaluative listings pertaining to educational media.
6	5	4	To develop skill in operating new media equipment (projectors, television cameras, and the like).

**RANK-ORDER OF GOALS SHOWING GREATEST ESTIMATED GAINS
IN COMPETENCE, PRE- TO POST-INSTITUTE**

Broad Goals	Rank-Order of Amount of Gain for Goal		
	Basic	Advanced	TV
Formulate a defensible plan of action for improving the educational media of the school or organization in which participant works (including both long- and short-term goals)	1	5	3
Become better acquainted with the availability, content, and use of source lists, catalogs, and evaluative listings pertaining to educational media	20	20	4
Become better acquainted with the concept of the instructional materials center involving full integration of "print" and "non-print" materials and services	2	4	2
Become better acquainted with recommended administrative patterns and procedures for educational media programs; improve ability to administer and organize such programs	3	6	10
Establish standards and procedures for the critical evaluation and selection of educational media and related materials by teachers, subject matter specialists, etc.	4	7	5
Improve the participant's grasp of factors, standards, and criteria involved in preparing, defending, and expending budgets for new educational media and services	5	10	11

Broad Goals	Rank-Order of Amount of Gain for Goal		
	Basic	Advanced	TV
Improve the participant's skills required for the local production of <u>more complex instructional materials</u> (television programs, 8mm or 16mm motion pictures, sound-slide sets, etc.)	10	1	12
Develop a better understanding of the availability and application of automated data processing and information retrieval devices and systems	21	2	22
Learn more about standards and recent improvements in the design of educational facilities (buildings, media centers, classrooms, auditoriums, etc.) to permit full and adequate use of educational media	6	3	17
Learn more about significant theoretical aspects and roles of new media in educational communication	9	8	1

Participants in the three groups differed considerably with respect to goals in which they gained greatest competence, but these differences closely parallel differences among kinds of objectives each of the three institute types emphasized. Advanced institute participants, for example, gained considerably in competence with respect to the use of automated data processing techniques, while basic and television participants gained very little in that regard. Participants in all three groups reported large gains with respect to: formulating plans of action, grasping the concept of the instructional materials center, standards and procedures for the critical evaluation and selection of educational media, and administrative procedures for media programs.

Knowledge (information) gains. McLaughlin's study (1965) of knowledge status and gains, as measured by pre- and post-institute administrations of his MICE test (a 150-item verbal instrument designed to sample knowledge in ten different aspects of "educational media") showed significantly higher post-institute scores for all groups sampled. Consequently, he, too, concluded that a significant amount of learning (changes in knowledge), as measured by his test, did occur during the course of the institutes. Although use of this particular test stirred some controversy among institute directors involved, it served the very useful purpose of highlighting the need for an improved instrument for such evaluation. A later outgrowth of this interest was the preparation of a booklet, Test Items in Educational Media, containing approximately 250 objective questions selected from more than fifty educational media tests submitted by media specialist institute directors throughout the United States. This publication summarized the present "state of the art" of examining in educational media courses as revealed through these tests. The resulting booklet itself (items in which, after rewriting, had been criticized by a panel of directors in the field) now serves as a resource list for use by instructors who seek to develop their own improved examinations.

Attitude changes. Ramsey's study (1965) based on the pre- and post-institute use of 39 statements contained in a "New Media Attitude Scale" with 24 groups of Summer 1965 participants concluded that there was no doubt that institute experiences produced many favorable changes in attitude toward the utilization of media for instructional improvement. Pre-institute attitudes toward uses of new media for instructional purposes were highly variable, both within and between the different groups of participants. This variability decreased significantly during the period of institute instruction, thus suggesting a growth of concurrence in beliefs or attitudes of participants about statements in his scale.

On-the-job Changes

Data bearing on the question, "How did the media specialist institute experience affect the later on-the-job performance of participants?", were obtained principally through use of two mail follow-up Participant Questionnaires and a number of personal interviews. Results showed:

Influence on projected plans. Approximately 70 per cent of participants responding to the follow-up questionnaire indicated that, as part of their institute experience, they had prepared proposed plans for improving or expanding educational media services in their school units. Seven out of ten reported success in having these plans completely or at least partially implemented. Almost none of them appeared to have been rejected.

Field interviews with basic institute participants and their administrators revealed that most such plans appeared to have received enthusiastic support from the administration, especially where communication was good or where the administrator, if not already "sold," was at least well informed about media. Plans proposed by advanced institute participants interviewed in the field included these titles: (a) to incorporate listening and viewing centers in the library, (b) to improve the use of television, magnetic tape, and transparencies, (c) to develop multi-media programs, (d) to improve planning, (e) to merge print and audiovisual materials collections, (f) to create a five-year expansion plan, (g) to develop an improved central organization for educational media, and (h) to decentralize libraries. These plans were considered, unquestionably, to have been institute-inspired. The many problems involved in obtaining administrator support of them were believed to justify giving considerably more attention in institute programs to interpersonal communication techniques than has been given so far.

In the cases of two during-the-year institutes (those at Hofstra and at SUNY Albany), high expectations founded on regional commitments and school and college teamwork were judged to have been responsible for providing an especially good environment in which to effect innovational improvements in media programs. The year-long program of these two institutes offered numerous opportunities for various kinds of week-by-week assistance--including the simple sharing of notes and the brainstorming of alternative solutions to "real" problems faced by participants in day-to-day school assignments.

Changed responsibilities. In the 1966-67 school year, as compared with the previous year, most media institute participants had more, about a third had the same, and only a few had less responsibility for a variety of educational media activities than they had had during the preceding year. While some 37% of them

indicated there were no important differences between those duties for 1965-66 and 1966-67, nearly two-thirds of them did state they now had "more" or "a great deal more" responsibility for: (a) selecting and purchasing materials, (b) selecting and purchasing equipment, (c) producing locally made instructional materials, and (d) conducting in-service work with teachers. Little change was noted in their duties pertaining to curriculum planning, the planning and expending of budgets, and the planning of physical facilities.

The educational media duties reported as "most time-consuming" by basic institute participants (based on field interviews) back on the job fell with greatest frequency under the headings of: (a) distribution--typically using up more than a third of the participant's released time, (b) production--using about 25% of it, and (c) utilization--using about a fourth of it. Advanced institute participants, on the other hand, reported their most time-consuming activities as: (a) planning or designing "educational messages," (b) advising teachers concerning best ways of using available materials and resources, (c) administering collections of audiovisual (non-book) materials, (d) organizing selection programs, and (e) actually producing various graphic instructional materials.

Increased time for media responsibilities. With the exception of Summer 1965 television institute participants, all groups reported they now devoted increased amounts of time to educational media activities back on the job. Those who had attended basic institutes were devoting about twice as much time during the 1966-67 school year as they had during the prior year. Summer 1965 basic participants had previously devoted 17% of their time to such duties, for example, but two years later this amount had doubled (34%). Summer 1966 basic participants had devoted 11% of their prior time to such duties, but this had also increased to 26% one year later. Summer 1965 advanced institute participants devoted a median 68% of their time to media activities during the previous year (1964-65); two years later this amount had risen to 95%. Summer 1966 advanced institute participants devoted a median 48% to such duties during 1965-66; two years later they devoted 78% of their time to them.

Thus, it appears that the year following attendance at an institute is marked by a substantial increase in the amount of time devoted to media activities by the total group. Following this first

year, the amount of released time for media activities appears not to increase as rapidly.

Increased and improved uses of media. An overwhelming majority of participants responding to the follow-up questionnaires appeared to have been quite successful in their efforts to extend uses of educational media in their school units.¹ Some 50% of the basic and advanced institute participants, for example, indicated they had "very greatly" or "greatly" improved the variety of materials in their schools. Virtually none of the participants indicated lack of success in this regard. While about a third of the Summer 1965 television institute participants reported they were relatively unsuccessful with respect to improving the variety of materials in their schools, this was not the case for Summer 1966 participants.

The institute experience itself appeared to have had greater effect upon extending the scope and quantity of media use in schools than upon improving their quality. Basic institute participants indicated that following attendance they had most frequently: (1) provided more materials and equipment and/or a greater variety of equipment and materials had been available than previously; (2) established media collections (filmstrips, for example) not previously available; and (3) provided more operators so that equipment could be used more frequently. While their in-service activities did increase considerably, the initial level appeared to have been so low that it was impossible to discuss a regular or established program of staff improvement. A large proportion of participants frequently discussed quality in terms of a medium ("better transparencies are available") or equipment, rather than in terms of improved "message design."

As might have been expected, participants' responses indicated that the impact of the institutes would be sequential--that the institutes would first influence the level of training of attendees, then the magnitude of the school's media program (and the teachers), and finally, the quality of media used in the program (and the administrators). For example, it appears that many basic institute participants, upon

¹Interestingly, 23 of the 25 basic media programs visited in the field were receiving federal assistance, many as a result of plans submitted by participants following their institute attendance.

completing an institute, began to establish educational media programs where none existed before. Consequently, their attention was thus directed primarily toward supplying services and items considered "ordinary" in many schools but which were nevertheless very necessary under the circumstances. It also appears that the majority of participants are optimistic about the probable success of their programs and that they look forward to steady gains in the use of a variety of materials and equipment and to greater emphasis upon "better" utilization of media.

Increased purchases. Summer 1965 media institute respondents appeared, as a group, to have made recommendations resulting in the purchase of more educational media items in the 1966-67 academic year than during the previous academic year. The median dollar value of media items thus purchased in the 1965-66 school year was \$3800; in the 1966-67 school year this figure had risen to \$5100. Advanced institute participants accounted for the greatest increase; television institute participants actually showed some decrease.

For the 1965-66 school year, the total Summer 1965 media institute participant group combined believed they were instrumental in influencing the purchase of more than five million dollars' worth of educational media items (materials, equipment, and supplies). In the 1966-67 school year, this group had purchased nearly seven million dollars' worth.

During the 1966-67 school year, all Summer 1966 media institute participants, combined, made recommendations resulting in the purchase of some three and one-half million dollars' worth of educational media items.

For the 1966-67 school year, all Summer 1965 and 1966 media institute participants, as a group, purchased more than ten million dollars' worth of media items.

Influence upon teachers and administrators. A majority of media institute participants believed that, as a result of their institute experiences, they had positively influenced the thinking or actions of teachers and administrators about important educational media matters. Some 6 out of 10 basic, 5 out of 10 advanced, and more than 4 out of 10 television institute participants indicated that they had "greatly" or "very greatly" influenced such thinking or actions. But participants in all three types of institutes

believed that they were less successful in influencing administrators than teachers.

Most of the administrators interviewed in the field expressed satisfaction with the enthusiasm and leadership of basic institute participants in implementing plans to improve media programs. Many participants were cited as being responsible for increasing media budgets; most administrators intended to provide increased released time in which to perform their duties. While the reactions of administrators of advanced institute participants were equally enthusiastic, the interviewer himself believed such estimates were higher than the evidence warranted. He observed that participants operating out of district offices had more freedom to act (and, hence, greater potential innovating influence) than those in single schools. It seems quite clear that the influence of ability of participants to effect media improvements or innovations is closely correlated with "know-how" and their own personalities. Participants who get things done--no matter in what situation or at what level--are those who are bright, businesslike, and knowledgeable, and at least mildly aggressive, and they are in school situations that accept or encourage innovation.

Increased salaries. The median salary of both Summer 1965 and 1966 basic media institute participants appeared to have increased significantly following institute attendance. The median salary received by Summer 1965 basic institute participants in 1964-65, prior to the institute, was \$7,051. One year later, in 1965-66, this figure had increased by \$777 to \$7,828. Two years later, in 1966-67, the median salary received by these participants was \$8,691--\$1,640 more than they received in the academic year prior to institute attendance. For Summer 1966 basic media institute participants, the median salary received in the academic year preceding institute attendance was \$6,993; in the following academic year they received a median salary of \$7,725--an increase of \$732.

After one year, only two in ten of the participants attributed their salary increases to institute attendance. A higher percentage of Summer 1965 participants indicated that their present salary (two years after the institute) was influenced by their having attended an institute (32% of the basic, 42% of the advanced, and 37% of television participants).

Median salaries of participants from both summers were considerably higher than the median national salaries for classroom teachers. This fact may indicate only that participants were employed in schools generally capable of paying higher salaries and thus financially more able to support audiovisual service programs than the "average" school in the country.

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Not all findings with respect to the on-the-job influences of institutes were positive. It appeared, for example, that although media centers administered by advanced institute participants were moderately well-housed, equipped, and staffed, few of their facilities were really new. Even the better installations were in this case judged by the field visitor to resemble those typical of a decade or so ago--not the modern versions one might expect today. Exceptions to the traditional look were noted in areas of television (specifically videotaping and cooperative transmission systems), technological information and storage retrieval operations (mostly in the planning stages), and the developing use of 8mm cartridged films. Only four of fifteen media centers observed under the management of advanced media institute participants were designed to accommodate student activity.

With a few outstanding exceptions, basic institute participants interviewed in the field were working in standard or substandard facilities. Although space allocated for media activities was seldom judged to be fully adequate, facilities were usually neat and well-organized. Equipment collections, while small and generally inadequate, were being expanded as rapidly as funds allowed. Single school non-book media collections, similarly poor, were also being expanded.

In nearly all cases observed, the single school media specialist who had attended a basic institute was assisted in his work by students only. In a very few cases some clerical or other paraprofessional personnel had been assigned to work with him. If judged by the situation in which these participants now find themselves, released time allocations to single school media personnel are much too limited. To provide the level and quality of leadership and service proposed by the Department of Audiovisual Instruction and the American Association of School Librarians, for example,

it will be necessary to make drastic increases in such assignments.

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It appears that in media specialist institutes there is a participant "failure" rate--failure in the sense of inability to use the institute experience--of about 10%. This rate tends to be higher in institutes offering more specialized content and/or involving a more selected group of non-media participants. This is clearly seen in responses of television institute participants, for example, who appeared to have less responsibility and released time for educational media activities than participants in other groups. While it is impossible to identify all the many factors, or groups of factors, that may be related to this failure rate, several appear to stand out. The greatest number of such failures appear to be the result of participants returning to their schools to find themselves faced with changed assignments that leave less time than before for media activities. Similarly, many participants found, upon return, that expected administrative support (chiefly in terms of money) was not forthcoming. Also, a number of participants did not continue with educational media duties; rather, they became principals, changed to schools where someone else was in charge of educational media, or assumed different responsibilities. Many failures appear to be related to procedures and/or criteria used in selecting participants for institutes--a failure to obtain sufficient advance information or commitment from applicants and their superiors.

E. HOW INSTITUTES AFFECT PROFESSIONAL PROGRAMS

QUESTION TWO. In what ways do educational media specialist institutes influence professional programs for the preparation of educational media personnel?

Most propitiously, the educational media specialist institutes are building an impressively large reservoir of media specialists at a time when federal and other programs are enabling schools to invest heavily in instructional materials, equipment, and

services for which administrative assistance is urgently required. At the present level of institute support alone, we may predict that within the first five years of the effort nearly 7,000 individuals will have gone through the program. When one compares this figure with the current total membership of 6,800 of the Department of Audiovisual Instruction, its significance becomes clear.

Our efforts to answer the question--What is the influence of these institutes upon programs for the preparation of professional educational media personnel--led us to three groups of individuals: (1) the participants themselves, (2) the directors of media specialist institutes who, in all cases, were also involved with instruction in college and university classes dealing with educational media (including master's and doctoral programs in the field), and (3) members of the Association of Chief State School Audiovisual Officers (ACSSAVO).

The following generalizations pertaining to this question appear to be defensible:

Increased attention to professional programs. The presence of media institutes on their campuses usually prompts colleges and universities to re-think certain aspects of basic and graduate instruction in the field. New master's degree programs, expanded doctoral offerings, and additional emphases upon two-year specialist programs often evolve. The fact of receiving an award for the funding of a media specialist institute serves to call the attention of college administrators to the need to improve opportunities for the preparation of such individuals. The competitive situation attendant to the development of institute proposals is frequently reported as having led to improved staffing, more varied and complete course offerings, and better physical facilities for the professional media specialist program.

Improved courses. Desirable pressures toward updating regular course content and increased regard for regular professional programs by local administration and staff are frequently reported as institutional benefits of participation in the NDEA media institute program. Directors report specific effects upon their professional preparation programs as follows: (1) greater involvement with schools and with teaching "outside college walls," (2) closer relationships with departments offering media-related courses, (3) increased

use of the practicum, (4) more concentration upon the training of building coordinators, (5) further specialization of the program to differentiate requirements and experiences for classroom teachers, building coordinators, and full-time professional media personnel.

Increased graduate enrollments. Media specialist institutes are shown to have led many participants to decide in favor of enrolling for additional graduate work leading to master's specialist, or doctor's degrees in the field. It frequently appears that all that is needed is a start (a few semester hours completed) and the encouragement that comes from recognizing that one can actually succeed in the field. About six out of ten participants were reported as holding master's degrees (nearly always in fields other than educational media) before enrolling in institutes. Nearly all those remaining indicated they intended to obtain master's degrees and nearly nine out of ten of those with master's degrees were pointing toward additional course work in a media-related field. Approximately 5% of the basic and 15% of the advanced institute participants intended to earn doctorates in the field.

Changed instructional organization. Changes in instructional organization are reported by directors as having resulted frequently as a result of insights developed in the institute. Specific changes mentioned included: (1) trial teaching of graduate courses in six-hour blocks, (2) use of programmed instruction outside of class for basic courses, and (3) increased emphasis upon laboratory activities. Opinions differed with regard to continued use of the lecture method. In some cases, less lecture time (or no lecture time at all) was advocated; at the other extreme, however, the institute was regarded by one director as having demonstrated the value of large-group, provocative lectures.

Closer ties with the field. Follow-up studies of institute "graduates" conducted by institutions of higher learning are known to have produced profitable outcomes: for the institution, improved insights on which to base curricular plans and developments; for the schools, greater appreciation of ways in which institutions of higher learning can aid in solving school problems in the field. The more institutions of higher learning participate in institute programs, the more they have contacts with highly selected students who are vocal and insistent about their need

for help in solving media problems they face in their schools, the more likely it is that the program of professional preparation will keep its feet on the ground.

Changed teaching practice. The experience of teaching in a media institute program does much to change individuals' points of view about and to improve their expertise. It is a frequent practice, for example, for institute instructors to use the team approach; visiting each other's classes is commonplace--expected; staff meetings involving discussions and critiques of teaching approach and procedures are frequent--often searching and frank. The regular program for the preparation of media specialists is reported to profit thereby.

Increased membership in professional groups. A not unimportant outcome of the media institute program that relates to professional development is the increasing numbers of institute participants who are stimulated to join and assume active roles in professional media specialist organizations. EMIE records show that upon enrollment not more than 20% of basic, 30% of television, and 70% of advanced institute participants belonged to DAVI, for example. Post-institute DAVI memberships for these same groups were: basic, 53%; television, 46%; and advanced, 80%. Similar increases in memberships were also reported for various state and local organizations. Increased participation of professionally trained media personnel in the work of their professional organizations would appear to offer much in improving professional performance.

Increased attention to educational media in content fields. Perhaps one of the most important professional outcomes of the institute program so far has been the attention given to educational media and media problems in so-called "content" institutes--those in history, geography, reading, civics, economics, industrial arts, modern foreign languages, and others. Inclusion in the authorizing National Defense Education Act itself of the simple phrase, "advanced study, including study in the use of new materials" (*italics added*), has stimulated increased activity along these lines in the more than 500 institutes offered each year. Teachers in all these fields are thus brought into contact with new media in a context that engenders confidence and acceptance. No longer are new media the "brain-children of gadgeteers." They have the endorsement (albeit sometimes hedged with deserved criticism) of content institute staffs in the field. The establishment of the Consortium of Professional Associations to Supervise

Studies of Special Programs for the Improvement of Instruction in American Education (CONPASS), now operating in Washington, D.C., of which DAVI is a member, coupled with the offering of a series of "Special Media Institutes" (through a contract coordinated by the University of Southern California in cooperation with DAVI, Michigan State University, and Syracuse University) appear to be further promising outgrowths of this development.

Improved inter-agency ties. Members of the Association of Chief State School Audiovisual Officers (ACSSAVO) report that the educational media specialist institutes are improving the professionalization of the field by creating better ties between state departments of education, universities and colleges, and schools. ACSSAVO members report frequent use of institute-trained personnel in their states to conduct workshops designed to acquaint teachers and administrators with innovations in educational media. In almost all cases, such workshops are patterned after the kinds of experiences these individuals had at their own media institutes.

Increased need for professional materials. Media specialist institutes have also served to highlight the need and to create demands for better and more diverse instructional materials applicable to professional problems of the field. For example, there is a critical shortage of expertly researched studies regarding scientifically validated materials selection and evaluation criteria and procedures or bases for the development of defensible media budgeting standards. Materials in these and many other areas are needed if we seriously intend to place educational media specialist instruction on a par with instruction in other professional fields.

Improved professional acquaintance. Media specialist institutes of the type conducted during the past two years appear to have the further potential of contributing to professional development by providing opportunities for practicing media specialists to become acquainted with each other, to learn from each other's problems, and to discover satisfactory ways of solving those problems. It is not inconceivable that this increased intercommunication will persist throughout a lifetime of professional contributions to the field.

Participant data bank. The media specialist institute program has provided a useful data bank of information concerning participants. Data already on hand in the EMIE files, for example, relate to the backgrounds, training, employment experience, and goals

of some 3,000 graduates of the 1965 and 1966 programs. Nearly all these persons are now employed in some way in school media programs. Follow-up studies of many kinds could be done with these individuals as well as with graduates of programs yet to be offered. For the first time, DAVI commissions and others may have access to data to facilitate longitudinal studies of career development; they could perform useful "slice of life" studies with no need for delays in obtaining suitable cross-section populations, and thus determine what media specialists do in their day-to-day assignments. Numerous other studies--all calculated to improve professional training in the field--could be conducted with these same subjects.

F. CHARACTERISTICS OF A "GOOD" INSTITUTE

QUESTION THREE. What makes a "good" educational media specialist institute?

Our effort to answer the third question, "What makes a 'good' educational media specialist institute?" was circumscribed, in part, by both the kinds and characteristics of institutes offered. But there was considerable variety in the institutes we studied--within and among the separate types. It was in that variety that we sought to identify the threads of superiority where and when we could find them.

Again, we started by asking questions--through questionnaires and on on-site visits. We gave special attention to institute objectives in relation to participant goals and the degree to which participant backgrounds seemed to have been taken into account in modifying the programs and formats of instruction. We studied the numbers, backgrounds, and methods of teaching employed by instructors, looked especially to see whether they "practiced what they preached" in classroom utilization of educational media and whether participants could spend enough time with them individually. We sat in classrooms and were pleased and displeased, as were participants, with what we saw (or couldn't see) and heard (or couldn't hear). We were stimulated or depressed by the appearance, appointments, and completeness of physical facilities, institute

libraries, and equipment collections. We sought to discover what was done to facilitate the whole program--to iron out the administrative kinks so as to produce a happy blend of good facilities, good instruction, good meals, and comfortable beds topped off with checks that never failed to arrive on time.

The signs in our various data (ranging from immediate observations of on-site visitors during the course of institute instruction to delayed questionnaires and on-the-job interviews up to two years later) point to a number of desirable qualities for educational media specialist institutes. The "good" institute is:

Well-planned. It has taken into account the limitations of time (the usual period is six weeks) in the scheduling of studies and activities. It has been based on a careful analysis of the backgrounds, special needs, working environments, goals, and interests of participants. This analysis is conducted at several points in the program: (1) at the time of writing the original proposal--with hypothesized data in mind for the kinds of participants for which the institute is planned, (2) when the participants have been selected--with more specific data in mind concerning each individual involved, (3) during the first week of the institute--with opportunities for more detailed attention to special needs and requirements, and (4) throughout the course of the institute--with day-to-day adjustments in program as required. Objectives of the well-planned institute have been carefully stated, generally in terms of specific terminal participant knowledge, skills, and attitudes. Planned institute activities, assignments, and evaluation procedures are clearly related to these objectives.

Flexible. The good institute provides reasonable opportunities for changing tack at almost any point during the institute period if important but unanticipated and somewhat different needs arise that can be accommodated within the original plan. A rigid, inflexible approach to institute planning and management usually spells trouble; yet so does the lack of structure. Proper balance of the two is essential.

Well-staffed. The good institute employs a sufficient number of professional and non-professional staff members who exhibit solid knowledge and skill in subjects concerned and an obvious liking for the many special kinds of give-and-take that occur in

institute teaching. A student-to-staff ratio of approximately 6:1 (full-time equivalent) appears to be optimum as far as professional staff members are concerned. It seems essential that staff members be willing to commit themselves, full-time, to the demands of institute participants and that they be able to relate theoretical considerations to realities of the public schools. Extroverted personalities appear to be most successful.

Competitive. The good institute gives special consideration to the matter of selecting participants. Competition is high; there are always more applicants than places. Admission to the program means far more (or should) than admission to a regular graduate program; it suggests especially that the individual so honored has leadership potential and that he should be encouraged to progress further in the field.

Varied. The good institute instructional program is not all demonstration, not all independent study, not all laboratory, not all anything. Rather, it is an astutely and functionally varied admixture of theoretical and practical, of "sit and listen" and "activity," of "see," "hear," and "read," of working on real problems and of thinking about broader implications of those problems in the total realm of educational communication and media. But it is not varied simply for the sake of variety or novelty; the variety that is introduced has functional purpose--to facilitate effective instructional approaches to particular instructional problems or purposes.

Advanced. The good institute takes participants where they are, endeavoring to move them to the more advanced levels anticipated, in the establishment of the National Defense Education Act, by the words "for advanced study." Because there are always many more applicants than places, and because selection is voluntary on the part of the director rather than the applicant, careful pairing of backgrounds and training with intended institute emphases is possible and essential. Thus, during even the first week instruction can be conducted at a level usually not possible in usual levels of classes. And because institute participants expect to use what they learn and need help with their problems, they favor a quick pace, a weeding out of the obvious, a getting down to the core of problems without wasting time. Participants often report that, in the process, they are "stretched" to keep up.

Innovative. The good institute is different from "regular" instruction, and should be. Generally, its staffing is richer than for usual class groupings, and there is less need to "go by the clock" or to follow rigidly prescribed instructional patterns to avoid schedule conflicts. As a consequence of these advantages, unusual but functional instructional developments can occur: the three-day field trip to a national convention in the middle of the session, a break in a schedule to permit unanticipated extended use of a particularly helpful resource visitor, a decision to break a large group into several smaller sections to deal with urgent problems for one or more days at a time, and many others. With more time to plan presentations, and with more technical assistance than is usually available, instruction can be expected to be good--and often out of the ordinary.

Exemplary. The good institute seeks, in a variety of ways, to "raise the sights" of participants. The side values of the well-visualized lecture, the effectively equipped special demonstration room, the efficient darkroom or television facility, are never ignored. The right kind of institute seeks to whet appetites for quality when participants return to their schools.

Professional. The good media specialist institute is conducted with a careful eye to professionalization. The contributions of educational media specialists to the improvement of instruction, the relationships of these individuals to other educational workers, and the real meaning of "professional" with respect to their work are important considerations of the institute program.

Practical, yet not nuts-and-bolts. Educational media specialist institute enrollees are notably interested in getting immediate answers to everyday problems they face in their schools "back home." They frequently grow restive if instruction is all theoretical and fails to come to grips with these problems. But performing professional tasks according to "book formulas" is discouraged; matters of principle and generality are stressed in the context of suitable theoretical frameworks.

A pleasant, satisfying experience. Perhaps one of the most striking results of attendance for the typical institute enrollee is his reaction to complete submersion, for an extended period of time, in

"groupness." For most persons, this experience is novel, satisfying, and memorable; it is usually high on the list of positive values of institute attendance mentioned in evaluations. While similar satisfactions sometimes come in regular classes, especially those stressing individual participation, they seem not to equal those of the institutes where, for several weeks, enrollees have studied, talked, eaten, lived, and worked together on common problems.

3. CONCLUSIONS AND RECOMMENDATIONS

The NDEA educational media specialist institutes appear, in retrospect, to be fulfilling important roles in updating qualifications of individuals responsible for expanding and improving educational media services at a time when the need for them is especially great. Effects of attendance at or the mere offering of one of these institutes upon campuses of colleges and universities across the country have been examined here in our effort to answer these questions:

1. How does attendance at an educational media specialist institute change participants--immediately, and over a period of time?
2. In what ways do these institutes influence professional programs for the preparation of educational media personnel?
3. What makes a "good" educational media specialist institute?

A. CONCLUSIONS

Our data show that participants and their administrators do believe that changes are brought about by such attendance. Their own estimates of competence with respect to statements of a number of goals usually associated with media specialist institutes go up significantly, for example. Later estimates, made in retrospect, remain similarly high. And tests of knowledge and attitudes pertaining to educational media show this same improvement.

Back on the job, most (9 out of 10) participants continue to rate institute experiences and the appropriateness of objectives highly; they tend also to describe the instruction as "better than anything" or "better than much" of the college instruction

received in their previous college studies. Specific on-the-job outcomes of institute experiences claimed for a majority of participants include: (a) implementation of media program plans developed during or since the institute, (b) increased media responsibilities, (c) increased time devoted to media activities, (d) "very greatly" or "greatly" increased and improved uses of media by teachers with whom they work, (e) increased purchases of media, equipment, and supplies, (f) increased influence upon the thinking and actions of teachers and administrators with respect to new media matters, and (g) increased salaries. With a few exceptions, these statements of outcomes also appear to be supported by administrators interviewed for this study.

Influences of the offering of institutes upon regular institutional programs for the professional preparation of educational media specialists were noted. Directors of institutes who are involved also in regular graduate instruction cite the following generally applicable results: (a) increased attention to regular professional preparation programs on their own campuses, (b) improved course content, brought about especially by increased contacts and familiarity with school problems in the field, (c) increased enrollments of better qualified graduate students in educational media programs, (d) changed instructional organization growing out of some of the experimental approaches used in institutes, (e) closer ties with the field, (f) changed teaching practices, (g) increased membership and participation in related professional organizations, (h) increased attention to educational media in the various content fields, (i) improved inter-agency ties, (j) increased need for instructional materials suitable for advanced professional studies, (k) improved professional acquaintance in the field, and (l) a useful data bank pertaining to the locations, assignments, training, and capabilities of several thousand media institute participants which offers promise for use as the basis for several studies needed to professionalize the field.

The "good" educational media specialist institute appears to have a number of desirable qualities. It is: (a) well-planned, (b) flexibly administered, (c) well-staffed--both as to quantity and quality, (d) competitive--admitting only the best qualified of those who apply, (e) varied, as to types of instruction and learning activities, (f) advanced--"stretching"

participants to keep up, (g) innovative--often employing quite different instructional procedures and formats, (h) exemplary--losing no opportunities to raise the sights of participants, (i) professional--stressing the importance of the work of the educational media specialist in today's school programs, (j) practical--yet not "nuts-and-bolts," and (k) a pleasant, satisfying experience.

B. RECOMMENDATIONS

In our estimation, then, the evidence suggests that educational media specialist institutes do serve a number of critically useful purposes and thus deserve to be continued. Recommendations for their further improvement have appeared in both the 1965 and 1966 EMIE final evaluation reports (see Bibliography) and in other EMIE Project publications. Additional recommendations given here are general in nature. We believe they point to still further ways of improving the quality of professional outcomes of the educational media specialist program:

1. Conduct a comprehensive study to identify kinds of preparation needed to perform rapidly changing and expanding functions of educational media personnel now serving in different capacities and at various administrative levels in the schools. Give particular attention in this study to functions that are (a) "professional," and that therefore must be performed by college-educated personnel, (b) "subprofessional," and that thus may be performed by adequately trained paraprofessionals. In the light of these analyses, help future institute directors design more relevant media specialist institute programs.

2. Continuously evaluate currently offered media institute programs to insure maximum relevance to the field. Give increased attention in advanced media specialist institutes to: (a) fundamentals of systematic planning and implementation of scientifically programmed instruction (including "message design"), (b) design and applications of data retrieval systems, (c) computer-based instruction, (d) mediated self-instruction (including dial-access systems), (e) program proposal writing, and (f) program evaluation and assessment (based to a much greater extent than now, upon credible cases). Design basic media specialist

institute programs to develop in depth the participant's background in areas especially relevant to his greatest responsibility at the single building level rather than to offer shallower surveys of the entire field.

3. Provide in all types of institutes more opportunities for individualized or independent study and for the sectioning of participants according to ability and achievement than have been provided previously.

4. Give more attention to the proper articulation of behaviorally stated institute objectives appearing in: (a) institute proposals, (b) announcement brochures, (c) institute prospect uses (outlines of instructional programs), and (d) plans for assessing instructional outcomes. Give similar attention to such objectives in general criteria for media specialist institutes contained in USOE announcements and proposal evaluation instruments and procedures.

5. Require of media specialist institute applicants advance information of several specific kinds, including: (a) full descriptions of the present status of their school or district media programs, (b) released time for media duties, (c) organizational plans for school and district media programs, (d) budgets, (e) inventories of materials and equipment presently available, (f) professional and non-professional staff (including student assistants), (g) descriptions of federal or state media programs with which they are involved, (h) assessments of program elements that appear to be most and least successful, and (i) proposed plans to guide the future growth of their media programs. Obtain, also, some assurance of the concurrence of local school administrators with these plans. Use the information obtained as an aid in: (a) selecting participants whose school situations are most ripe for improvement, and (b) assessing the extent to which institute experiences actually aid in bringing about such improvement.

6. Increase efforts to: (a) identify personal and professional qualities of persons most likely to succeed as educational media specialists, (b) encourage greater numbers of persons possessing these qualities to apply to attend institutes, and (c) gear instructional programs to meet the special needs these individuals display. It sometimes seems that, as they are presently designed, basic media institutes in particular offer to qualify almost anyone as a "media specialist" if only he proves he is assigned to handle

the duties of such persons in his school. By giving more attention to desirable personal and professional qualities of media specialists and somewhat less to the criterion of actual assignment to media responsibilities, it may be possible to attract to media institutes more successful and well-trained teachers and supervisors who could contribute much to the field.

7. Fund additional numbers of academic year media specialist institutes. This practice will permit greater numbers of employed educational media personnel and their administrators to benefit from institute instruction without requiring special leaves of absence. It will also permit institute programs to be geared specifically to the needs of schools within a relatively small geographic area and provide a sufficiently long period of time in which to observe effects of institute instruction upon the improvement of media programs.

8. Fund greater numbers of short-term institutes (as short as two weeks) containing a limited range of topical offerings. Short institutes dealing with programmed instruction, single concept films, graphics production, proposal writing, program evaluation, or similar topics, directed toward building coordinators, for example, might apply to personnel whose needs are more for "rounding out" than "general re-tooling."

9. Develop and offer experimentally one or more special institutes for educational media specialist institute directors similar to those now offered for directors of institutes in other fields covered by NDEA. These need not be long sessions (perhaps four or five days would be adequate), but they should be planned to provide a maximum of opportunities for directors to learn from each other as well as from expert staff members how to plan and conduct the best possible institute programs. Give special attention in such sessions to: (a) the specificities of objectives regarded as being most essential for different types of institutes, (b) sources of the latest, most useful, and highest quality instructional materials, information, and learning experiences related to those objectives, (c) selection and assignment of staff members, (d) criteria and instruments for evaluating program outcomes, and (e) opportunities for cooperative exchanges of products (visuals, tape-slide units, videotapes, manuals, handbooks, and the like) among institutes in different parts of the country. Supplement such institutes with additional exchanges of

tests, bibliographies, film lists, individualized study plans, course outlines, and similar materials.

10. Make increased use of single school, school district, county, or regional educational media centers as settings in which to offer educational media specialist institutes, since such environments more closely resemble those in which participants will later work. This arrangement should permit many kinds of assignments ("message designs" for a specific class of students, for example, who could make immediate use and evaluations of them) that would be difficult or impossible to manage in the less realistic environment of the ordinary college situation.

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